PAVA-003/01US PATENT

## CARDIAC APPARATUS INCLUDING ELECTROACTIVE POLYMER ACTUATORS AND METHODS OF USING THE SAME

## ABSTRACT OF THE DISCLOSURE

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Cardiac apparatus and methods of using such cardiac apparatus are described. In one embodiment, a cardiac apparatus includes a covering that is configured to at least partially encircle a heart with a first portion of the covering adjacent to a second portion of the covering. The cardiac apparatus also includes an electroactive polymer actuator. A first end of the electroactive polymer actuator is coupled to the first portion of the covering, and a second end of the electroactive polymer actuator is coupled to the second portion of the covering. The second end of the electroactive polymer actuator is oriented such that, upon actuation of the electroactive polymer actuator, the second end of the electroactive polymer actuator to move the second portion of the covering towards the first portion of the covering.